## Bats of San Diego County

- 2002 USGS Surveys
  - San Diego County MSCP Area

County of San Diego

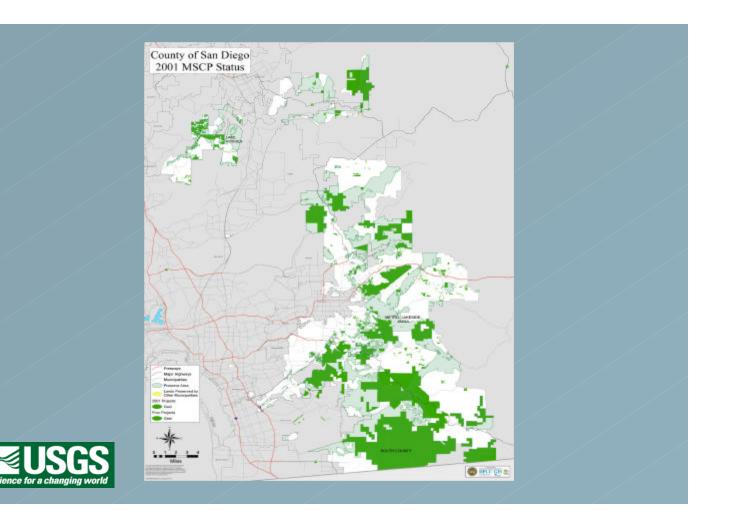


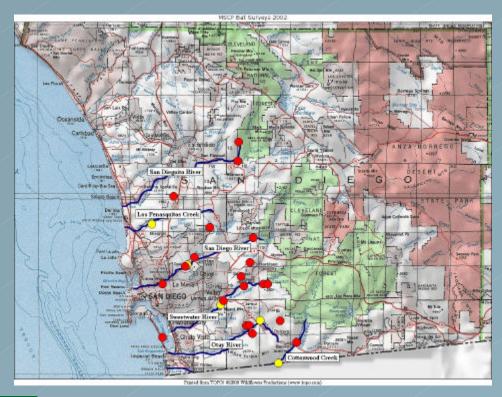
California Department of Fish and Game



US Department of the Interior US Geological Survey









## Site Selection Criteria

- Open Water
- Riparian Scrub
- Riparian Forest
- Oak Woodland
- Native Scrubland
- Native Grassland
- Artificial Lights

- Rock Outcrops/Cliffs
- Natural Caves
- Mines
- Flumes
- Buildings
- Bridges



#### Methods

- Foraging Bats
  - Mist-nets
  - Acoustic
    - Anabat II Bat Detector
    - Audible
  - Visual
- Roosting Bats
  - Diurnal searches of day/night roosts
  - Nocturnal searches of night roosts
  - External surveys as bats exit/enter roosts















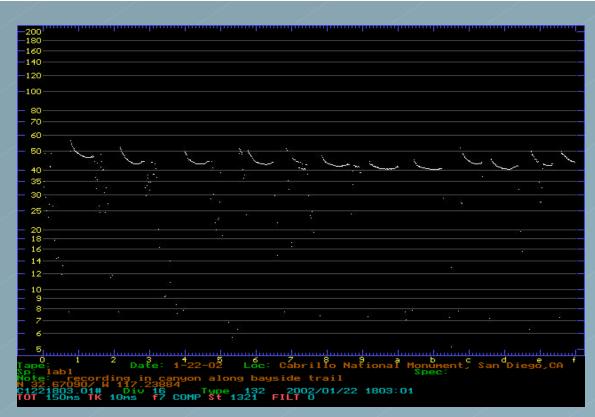






























Bats of San Diego County				
Bat Species			Legal Status <sup>1</sup>	Survey Results 2002
<u>Family</u>	Scientific name	Common name	CSC, FSC, FSS, BLM	MSCP.
Phyllostomatidae	Macrotus californicus	California leaf-nosed bat	CSC, FSS, BLM	X
	Choeronycteris mexicana	Mexican long-tongued bat	CSC	X
Vespertilionidae	Myotis yumanensis	Yuma myotis	FSC, BLM	X
	Myotis evotis	Long-eared myotis	FSC, BLM	X
	Myotis thysanodes	Fringed myotis	CSC*, FSC, BLM	Not Detected
	Myotis volans	Long-legged myotis	CSC*, FSC, BLM	Not Detected
	Myotis californicus	California myotis	none	X
	Myotis ciliolabrum	Small-footed myotis	FSC, BLM	X
	Lasionycteris noctivagans	Silver-haired bat	none	Not Detected
	Pipistrellus hesperus	Western pipistrelle	none	X
	Eptesicus fuscus	Big brown bat	none	X
	Lasiurus blossevillii	Red bat	CSC*, FSS	X
	Lasiurus xanthinus	Yellow bat	CSC*	Not Detected
	Lasiurus cinereus	Hoary bat	none	X
	Euderma maculatum	Spotted bat	CSC, FSC, BLM	Not Detected
	Corynorhinus townsendii	Townsend's big-eared bat	CSC, FSC, FSS, BLM	X
	Antrozous pallidus	Pallid bat	CSC, FSS, BLM	X
Molossidae	Tadarida brasiliensis	Mexican free-tailed bat	none	X
	Nyctinomops femorosaccus	Pocketed free-tailed bat	CSC	X
	Nyctinomops macrotis	Big free-tailed bat	CSC	X
	Eumops perotis	Western mastiff bat	CSC, FSC, BLM	X
	/		Effort (No. of surveys)	45

<sup>&</sup>lt;sup>1</sup> Legal status categories include California Species of Special Concern (CSC), species proposed to become California Species of Special Concern (CSC\*, Betsy Bolster pers. comm.), Federal Species of Concern (FSC), Forest Service Sensitive (FSS), and Bureau









































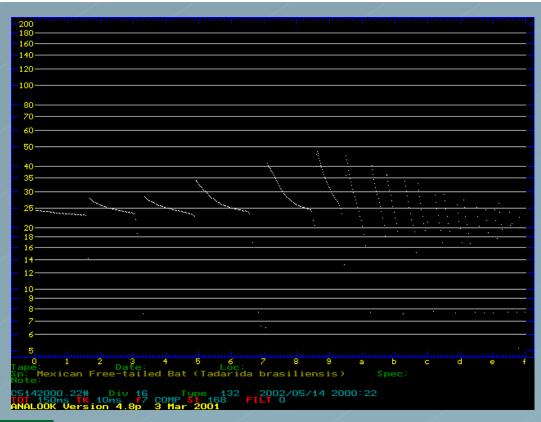




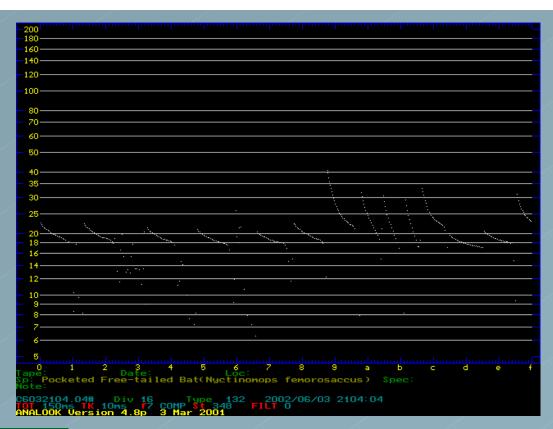




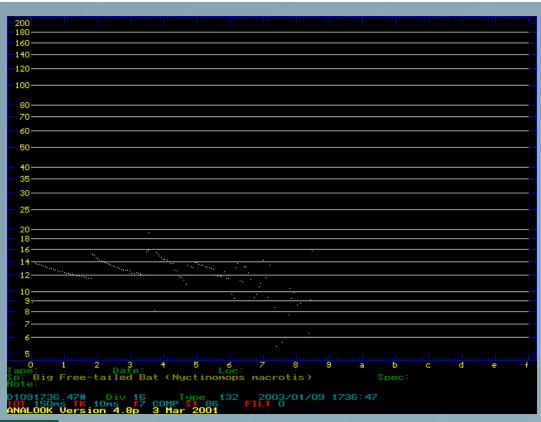




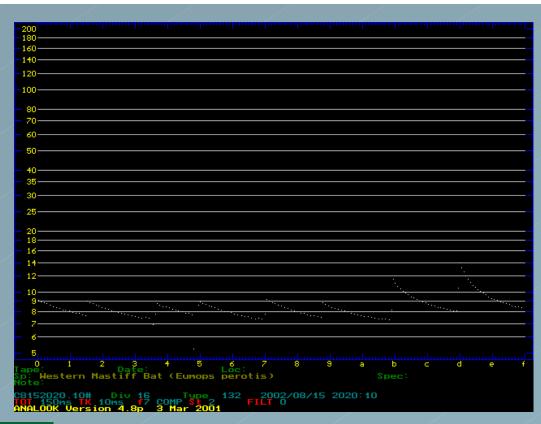




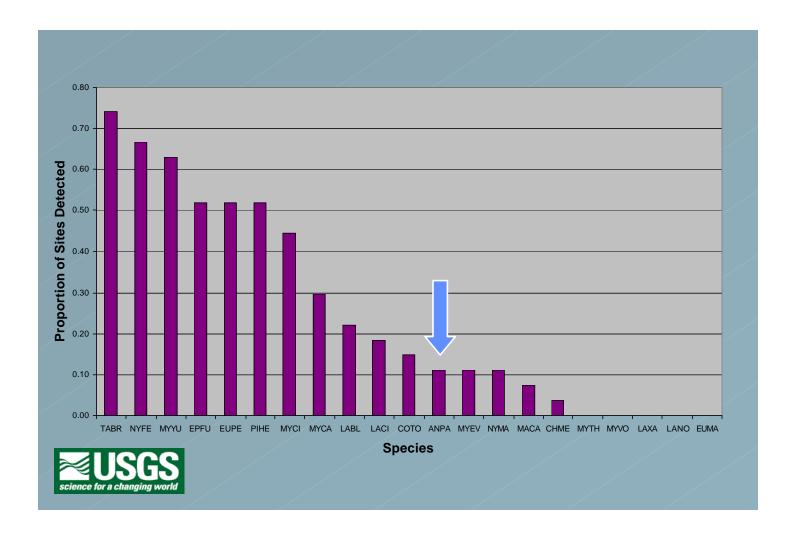






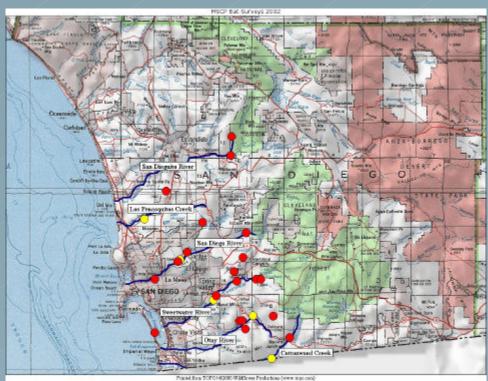






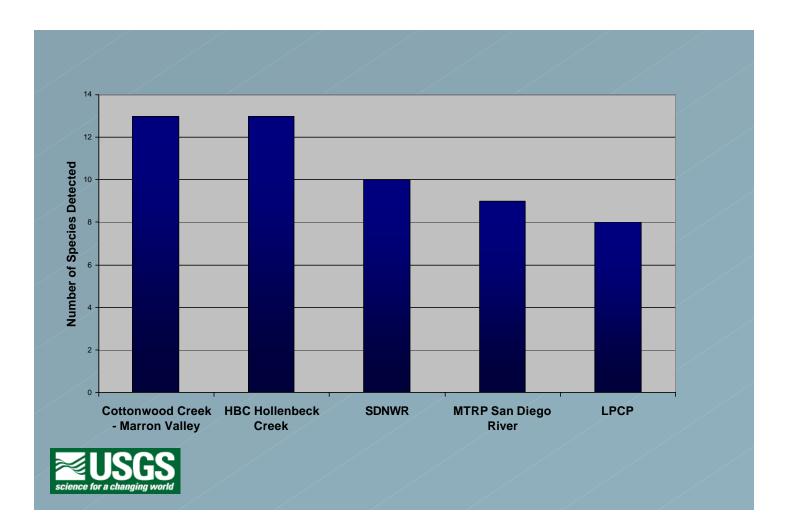












# **Preliminary Conclusions**

- Southern portion of MSCP preserve system supporting greatest number of bat species including several rare species
  - Greatest amount of contiguous, structurally diverse land including intact riparian and upland systems
  - Many bat roosting opportunities
    - Abundance of exposed rocky habitat
    - Presence of natural and artificial caves
- Importance of coastal habitats to resident and migratory species cannot be overlooked



## Key Management Issues

- Protection of roosts
  - Mines
    - Otay Mtn
    - McGinty Mtn
    - El Monte OSP
  - Flumes and Dams
  - Bridges
  - Buildings

- Recognition of the importance of preserving upland habitats along with riparian systems to maintain diverse bat populations
- More local bat research needed



### Additional MSCP Sites

- City of Poway sub-area
- City of Santee sub-area
- City of Chula Vista sub-area
- · City of San Diego sub-area
  - Marian Bear Memorial Park
  - Tecolote Canyon



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  - California Department of Fish and Game
  - United States Fish and Wildlife Service
  - Bureau of Land Management
  - San Diego Fish and Wildlife Advisory Committee







